

CLAIMS

What is claimed is:

1. A method for preventing a symptom of papillomavirus infection in an individual who has been exposed to papillomavirus, comprising administering a composition comprising a polynucleotide comprising an immunostimulatory sequence (ISS) to said individual, wherein the ISS comprises the sequence 5'-C, G, pyrimidine, pyrimidine, C, G-3', wherein a papillomavirus antigen is not administered in conjunction with administration of said composition, and wherein said composition is administered in an amount sufficient to prevent a symptom of papillomavirus infection.
2. The method of claim 1, wherein the ISS comprises the sequence 5'-purine, purine, C, G, pyrimidine, pyrimidine, C, G-3'.
3. The method of claim 2, wherein the ISS comprises a sequence selected from the group consisting of 5'-AACGTTCG-3', and 5'-GACGTTCG-3'.
4. The method of claim 1, wherein the ISS comprises the sequence 5'-TGACTGTGAACGTTCGAGATGA-3' (SEQ ID NO:1).
5. The method of claim 1, wherein the individual is a mammal.
6. The method of claim 1, wherein administration is at the site of exposure.
7. The method of claim 1, wherein the papillomavirus is a human papillomavirus (HPV).
8. The method of claim 1, wherein the papillomavirus is an animal papillomavirus.

9. A method of reducing severity of a symptom of papillomavirus infection in an individual infected with papillomavirus, comprising administering a composition comprising a polynucleotide comprising an immunostimulatory sequence (ISS) to said individual, wherein the ISS comprises the sequence 5'-C, G, pyrimidine,
5 pyrimidine, C, G-3', wherein a papillomavirus antigen is not administered in conjunction with administration of said composition, and wherein said composition is administered in an amount sufficient to reduce severity of a symptom of papillomavirus infection.

10. The method of claim 9, wherein the ISS comprises the sequence 5'-
10 purine, purine, C, G, pyrimidine, pyrimidine, C, G-3'.

11. The method of claim 10, wherein the ISS comprises a sequence selected from the group consisting of 5'-AACGTTTCG-3' and 5'-GACGTTTCG-3'.

12. The method of claim 9, wherein the ISS comprises the sequence 5'-
TGACTGTGAACGTTTCGAGATGA-3' (SEQ ID NO:1).

13. The method of claim 9, wherein the individual is a mammal.

14. The method of claim 9, wherein administration is at a site of infection.

15. The method of claim 9, wherein the papillomavirus is a human papillomavirus (HPV).

16. The method of claim 9, wherein the papillomavirus is an animal
20 papillomavirus.

17. A kit for use in treatment of a symptom of papillomavirus infection in an individual infected with, exposed to or at risk of being exposed to papillomavirus, comprising a composition comprising a polynucleotide comprising an immunostimulatory sequence (ISS), wherein the ISS comprises the sequence 5'-C, G,

pyrimidine, pyrimidine, C, G-3', wherein said kit does not comprise a papillomavirus antigen, and wherein the kit comprises instructions for administration of said composition to an individual infected with, exposed to or at risk of being exposed to papillomavirus.

5 18. The kit of claim 17, wherein the ISS comprises the sequence 5'-purine, purine, C, G, pyrimidine, pyrimidine, C, G-3'.

19. The kit of claim 18, wherein the ISS comprises a sequence selected from the group consisting of 5'-AACGTTCG-3' and 5'-GACGTTCG-3'.

10 20. The kit of claim 17, wherein the ISS comprises the sequence 5'-TGA CTGTGAACGTTCGAGATGA-3' (SEQ ID NO:1).

21. The kit of claim 17, wherein the papillomavirus is a human papillomavirus (HPV).

22. The kit of claim 17, wherein the papillomavirus is an animal papillomavirus.